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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/725,521	12/03/2003	Nobuyuki Shirie	8012-1218	3762
466	7590	05/09/2006	EXAMINER	
YOUNG & THOMPSON 745 SOUTH 23RD STREET 2ND FLOOR ARLINGTON, VA 22202			NGUYEN, THONG Q	
			ART UNIT	PAPER NUMBER
			2872	

DATE MAILED: 05/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

H.A. ~~2~~**Office Action Summary**

Application No.

10/725,521

Applicant(s)

SHIRIE, NOBUYUKI

Examiner

Thong Q. Nguyen

Art Unit

2872

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 6-13, 21, 22, 24 and 25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 25 is/are allowed.
- 6) ☒ Claim(s) 6-11, 13, 21, 22 and 24 is/are rejected.
- 7) ☒ Claim(s) 12 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. The present Office action is made in response to the amendment filed on 3/30/2006. It is noted that in the amendment, applicant has amended claim 25. The pending claims 6-13, 21-22 and 24-25 are examined in this Office action. Note that claims 1-5, and 23 were canceled by applicant in the amendment of 11/25/05 and claims 14-20 were canceled by applicant in the amendment of 3/14/05.

Claim Objections

2. The objection to claim 25 as set forth in the previous Office action is overcome by the amendment to the claim filed by the applicant on 3/30/06.

Claim Rejections - 35 USC § 103

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 6, 21 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Azami et al (U.S. Patent No. 5,568,322) in view of Matsumoto et al (U.S. Patent No. 6,552,859).

Azami et al disclose a lens system having a lens barrel for supporting a plurality of lens elements and a light-intercepting element. The system as described in columns 1-3 and shown in figure 2 comprises a lens barrel (11) supporting lens elements (L1-L3) and a light intercepting element (13) which is disposed between the lens element (L2) and (L3). The light-intercepting element as shown is in contact with the lens surface of the lens element (L2) and oriented in a direction

which is inclined to the optical axis of the lens system. The inner periphery of the light-intercepting element defines a circular configuration for allowing light passing therethrough. See column 1, last three lines through column 2, first three lines. The arrangement of the light-intercepting element inside the lens elements will allow passage of light while blocking light incident on the peripheral portion of the lens element (L3). As a result of the combination of the lens elements and the light-intercepting element provided by Azami et al, the only feature missing from the light-intercepting element provided by Azami et al is that they do not clearly state that the inner section of the light-intercepting element has a side surface of a circular truncated cone as claimed. However, the use of a light-intercepting element wherein the inner section of the light-intercepting element is made as a side surface having a truncated cone is known to one skilled in the art as can be seen in the system provided by Matsumoto et al.

In particular, Matsumoto et al discloses a lens apparatus having a plurality of lenses arranged on an optical axis and a shading plate disposed proximately a lens for blocking off light entering the peripheral portion of the lens. See abstract and column 2. In the embodiment as described in columns 3-4 and shown in fig. 1, the shading element (11) comprises an outer section (14) and an inner section (15) wherein the outer section (14) is an annular flat plate and the inner section (15) is a conical oblique plate and the outermost portion of the inner section (15) meets the innermost portion of the outer section (14) and the innermost portion of the inner section defines a circular configuration. See figures 3-4. It is noted that

while the shading plate as described in the embodiment provided in columns 3-4 and shown in fig. 1 has a contrast compensating plate (13); however, the shading plate (11) does not need to have a contrast compensating plate is provided in the embodiment described in column 5, lines 24-28 and shown in fig. 9. It is also noted that while Matsumoto et al disclose that the conical portion of the shading plate is covered the peripheral portion of the lens element, they do not teach that the conical portion of the shading plate is in contact to the peripheral portion of the lens. See column 3, lines 50+ through column 4, lines 12.

Thus, it would have been obvious to one skilled in the art at the time the invention was made to modify the lens barrel supporting a plurality of lens elements and a light intercepting element as provided by Azami et al by using a light intercepting element having an outer section and an inner section wherein the outer section is an annular flat plate and the inner section is a conical oblique plate and the outermost portion of the inner section meets the innermost portion of the outer section and the innermost portion of the inner section defines a circular configuration as suggested by Matsumoto et al for the purpose of increasing the ability of preventing light harmful to the formation of the image quality.

5. Claims 8-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Azami et al in view of Matsumoto et al as applied to claim 6 above, and further in view of the prior art admitted by the applicant as stated in the present specification in page 1.

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The system with the light intercepting mask as provided by Azami et al and Matsumoto et al does not explicitly state that the light intercepting element is made by phosphor bronze plate or a Mylar film by sheet metal stamping with thickness is approximately 0.03 to 0.05 mm as claimed. However, the use of a light intercepting element made by a Mylar film having such a thickness is known to one skilled in the art as admitted by the applicant in the present specification in page 1. Regarding to the use of phosphor bronze material for making the light intercepting element as recited in present claims, such a recitation is merely that of a preferred embodiment and no criticality has been disclosed. The support for that conclusion is found in the present claims 4-5 and 10-11 in which claims, the applicant has claimed that the material of the light intercepting element is Mylar. Thus, it would have been obvious to one skilled in the art at the time the invention was made to modify the light intercepting mask provided by Azami et al and Matsumoto et al by using Mylar material as suggested by the prior art or other suitable material available in the art/market including the bronze material for making the light intercepting mask to meet a particular design/application.

See In re Leshin, 125 USPQ 416.

6. Claims 6-7, 13, 21-22 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kudo et al (U.S. Patent No. 4,886,342, of record) in view of Matsumoto et al (U.S. Patent No. 6,552,859).

Kudo et al disclose a lens system having a lens barrel for supporting a plurality of lens elements and a light-intercepting element. The system as described in

columns 2-4 and shown in figures 1-2 comprises a lens barrel system supporting lens elements (1-3) and a light intercepting element (7) which is disposed between the lens element (2) and (3). The light-intercepting element as shown in figure 2 is in contact with a spacer (6) which spacer is disposed between the two lens elements (2 and 3) and the light-intercepting element (7) is disposed between the lens element (2) and the spacer (6). The arrangement of the light-intercepting element inside the lens elements will allow passage of light while blocking light incident on the peripheral portion of the lens element (3). As a result of the combination of the lens elements and the light-intercepting element provided by Kudo et al, the only feature missing from the light-intercepting element provided by Kudo et al is that they do not clearly state that the inner periphery has a side surface of a circular truncated cone as claimed. However, the use of a light-intercepting element wherein the inner periphery of the light-intercepting element is made as a side surface having a truncated cone is known to one skilled in the art as can be seen in the system provided by Matsumoto et al.

In particular, Matsumoto et al discloses a lens apparatus having a plurality of lenses arranged on an optical axis and a shading plate disposed proximately a lens for blocking off light entering the peripheral portion of the lens. See abstract and column 2. In the embodiment as described in columns 3-4 and shown in fig. 1, the shading element (11) comprises an outer section (14) and an inner section (15) wherein the outer section (14) is an annular flat plate and the inner section

(15) is a conical oblique plate and the outermost portion of the inner section (15) meets the innermost portion of the outer section (14) and the innermost portion of the inner section defines a circular configuration. See figures 3-4. It is noted that while the shading plate as described in the embodiment provided in columns 3-4 and shown in fig. 1 has a contrast compensating plate (13); however, the shading plate (11) does not need to have a contrast compensating plate is provided in the embodiment described in column 5, lines 24-28 and shown in fig. 9. It is also noted that while Matsumoto et al disclose that the conical portion of the shading plate is covered the peripheral portion of the lens element, they do not teach that the conical portion of the shading plate is in contact to the peripheral portion of the lens. See column 3, lines 50+ through column 4, lines 12.

Thus, it would have been obvious to one skilled in the art at the time the invention was made to modify the lens barrel supporting a plurality of lens elements and a light intercepting element as provided by Kudo et al by using a light intercepting element having an outer section and an inner section wherein the outer section is an annular flat plate and the inner section is a conical oblique plate and the outermost portion of the inner section meets the innermost portion of the outer section and the innermost portion of the inner section defines a circular configuration as suggested by Matsumoto et al for the purpose of increasing the ability of preventing light harmful to the formation of the image quality.

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7. Claims 8-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kudo et al in view of Matsumoto et al as applied to claim 6 above, and further in view of the prior art admitted by the applicant as stated in the present specification in page 1.

The system with the light intercepting mask as provided by Kudo et al and Matsumoto et al does not explicitly state that the mask is made by phosphor bronze plate or a Mylar film by sheet metal stamping with thickness is approximately 0.03 to 0.05 mm as claimed. However, the use of a light intercepting element made by a Mylar film having such a thickness is known to one skilled in the art as admitted by the applicant in the present specification in page 1. Regarding to the use of phosphor bronze material for making the light intercepting element as recited in present claims, such a recitation is merely that of a preferred embodiment and no criticality has been disclosed. The support for that conclusion is found in the present claims 4-5 and 10-11 in which claims, the applicant has claimed that the material of the light intercepting element is Mylar. Thus, it would have been obvious to one skilled in the art at the time the invention was made to modify the light intercepting mask provided by Kudo et al and Matsumoto et al by using Mylar material as suggested by the prior art or other suitable material available in the art/market including the bronze material for making the light intercepting mask to meet a particular design/application. See *In re Leshin*, 125 USPQ 416.

Allowable Subject Matter

8. Claim 25 is allowed.

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9. Claim 12 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

10. The following is a statement of reasons for the indication of allowable subject matter:

The taking lens unit comprises a lens barrel supporting a plurality of lens elements and a flare stopper as recited in each of present claims 12 and 25 is patentable with respect to the prior art, in particular, the U.S. Patent Nos. 4,886,342; 5,568,322; 5,420,65 and 6,392,825 by the limitations related to the structure of the flare stopper and the lens which presses and deforms the flare stopper. In particular, while the use of a stop between two lens elements or between a lens and a spacer wherein the stop has an inner opening for allowing light passing therethrough is known to one skilled in the art as can be seen in each of the mentioned Patents; however, the prior art does not disclose a combination of lens elements and a flare stopper wherein the combination has the claimed feature thereof: "the flare stopper and one of the lens elements are arranged so that one of the lens elements presses and deforms...deform lens".

Response to Arguments

11. Applicant's arguments with respect to claims 6-13, 21-22 and 24 have been considered but are moot in view of the new ground(s) of rejection.

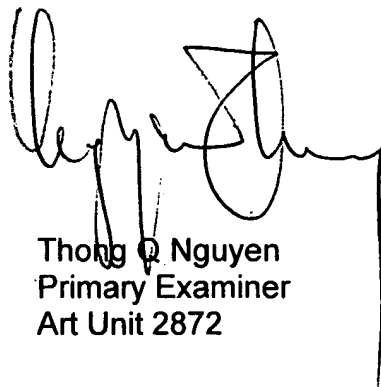
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Conclusion

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thong Q. Nguyen whose telephone number is (571) 272-2316. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew A. Dunn can be reached on (571) 272-2312. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Thong Q. Nguyen
Primary Examiner
Art Unit 2872
